

REMARKS

The Office Action of July 1, 2004, has been considered by the Applicants. Claim 10 has been amended as discussed below and claims 17, 18 and 20 have been amended to clarify their dependency to claim 11. Claims 10-13, 15-20, and 22-27 remain pending. Reconsideration of the Application is requested.

1. The instant claims are not anticipated.

Claims 10, 13, 15-17, 22, 24, and 26-27 were rejected under 35 USC § 102(b) as allegedly being anticipated by Hoffman (U.S. Patent No. 3,956,045). Applicants traverse the rejections.

Hoffman discloses an apparatus in which layers of resinous materials (i.e., polyesters) films are first compressed, then heated to high temperatures. This is to melt the polyester and affect the sealing of the two polyester layers to form bags.

In the current development a seam region of an already formed flexible belt is first heated, then compressed. This is to smooth out the morphology of the seam region. This occurs at a temperature slightly above the glass transition temperature (T_g) to the material. This heating just adequately changes the thermoplastic surface material from a glassy state to a rubbery state to produce effective smoothing of the seam region under compression force, but not sufficient to produce thermoplastic material melt fusion as disclosed in Hoffman.

In the current Office Action, the Examiner stated that the intended use of the apparatus has no patentable weight and required the Applicants to prove that the subject matter shown in the prior art does not necessarily possess the characteristics relied on. The Examiner appears to be making an inherency argument; however, the burden of proof is on the Examiner to show that Hoffman necessarily teaches first heating, then compressing. MPEP § 2112(IV).

Furthermore, Applicants submit that due to differences between these apparatuses and processes, Hoffman does not make this teaching. Hoffman's apparatus joins or fuses two films together to form a bag, whereas the current development merely smoothes out an already-joined belt. Because of this

difference, Hoffman requires that the two films first be compressed so that they have an interface to which heat is then applied, joining the two films together; see col. 2, lines 8-37. If the films are not first compressed, then no interface would be formed for heat to be applied to and a bag would not be formed. However, if a flexible belt is compressed without first heating it above its glass transition temperature, then it will not deform and the goal of smoothing out the seam, eliminating protrusions, and reducing the seam region thickness will not be enabled. In other words, the difference in processing steps necessarily produces a different result. Therefore, Hoffman does not possess the characteristics relied on.

In addition, Hoffman does not anticipate dependent claims 13, 15, 17, or 22-24, all of which refer to the heatable member. The Examiner refers to Figs. 19-22 as anticipating these claims. These Figures illustrate means for folding the films to form four layers and do not refer to the heatable member at all; see col. 12, line 46 – col. 13, line 7. Therefore, those claims are not anticipated by Hoffman.

For the reasons above, Applicants request withdrawal of the rejection as allegedly being anticipated by Hoffman.

Claims 10, 12-13, 15, 17-19, 22-24, and 26 were rejected under 35 USC § 102(b) as reportedly being anticipated by Off (U.S. Patent No. 4,214,933). Applicants also traverse these rejections.

Off does not disclose all of the claim limitations. MPEP § 2131. In regards to Figs. 1 and 2 of Off, the support member cited by the Examiner (24, 82) does not support the flexible length of material (54) in a way as to obtain the claimed apparatus. When the flexible belt (54) is positioned as in Figs. 1 and 2, it would lie upon the guide portion (28, 88) and a recessed area would lie below the heatable member (44, 100). When the heatable member is lowered, it would not compress the seam region under it because there is no opposing surface. Off recites that the member 44 is no wider than the guide portion 28 and moves down between grooves (30) to compress; see col. 4, lines 62-69. Therefore, the compression required by the present development is not present in Off. With regards to Fig. 3 of Off, no support member is provided to receive and support a length of material. Therefore, all claim limitations are not present. Applicants request withdrawal of the objections as anticipated by Off.

Claims 10-13 and 24 were rejected under 35 USC § 102(b) as allegedly being anticipated by Hunt (U.S. Patent No. 4,528,056). Applicants traverse the rejections.

Hunt does not disclose all claim limitations. In particular, the heatable member (60) does not comprise a low surface energy or adhesive material. Applicants request withdrawal of the objections as anticipated by Hunt.

Additionally, Hunt is directed to an entirely different process; the application of a Mylar strip to an edge of paper with a hot melt type of adhesive. However, Applicant's process is again not a melt joining or fusing process, but a seam smoothing process. The seam region of a previously formed belt is treated to a temperature only above the belts Tg temperature to transform the material from its glassy state to a rubbery state to effect surface smoothing. This is entirely different than Hunt's process. Consequently, withdrawal of these rejections is requested.

2. The instant claims are not obvious.

Claims 11, 16, 20, 25, and 27 were rejected under 35 USC § 103(a) as reportedly being obvious and unpatentable over Off. Applicants traverse the rejections.

As discussed above, Off does not disclose all claim limitations. MPEP § 2143.03. In addition, with regard to claim 20 there is no motivation to modify Off by heating the material to a predetermined temperature in order to soften and to reshape the material. MPEP § 2143.01. Off never discusses the desirability or need to soften / reshape the material; instead, he specifically states "the exact composition of [the material] is not critical to the practice of the invention." See col. 4, lines 46-49. Also, there is no need to soften or reshape the material for the field of use contemplated by Off, which is clothing. Moreover, Off speaks of heating the adhesive, not the flexible length of material (54). See top of col. 5. However, no adhesive is required in the present development. For these reasons, a *prima facie* case of obviousness has not been made. Applicants request withdrawal of the rejections as allegedly being obvious over Off.

Claims 10, 13, 22-24, and 26 were rejected under 35 USC § 103(a) as allegedly being obvious and unpatentable over Onishi (U.S. Patent No. 4,461,662) in

view of Schwarzkopf (U.S. Patent No. 3,551,259). Applicants also traverse these rejections.

In Applicants' arguments filed April 24, 2004, it was stated that even if the combination was obvious, it would not result in the same apparatus as claimed due to the U-shaped recess in the presser member (15). The Examiner replied that because the instant claims use the "comprising" language, they are opened to different limitations than taught by the prior art. However, with regard to the shape of the compressing surface, claim 10 clearly recites a limitation of a smooth heatable flat surface. In other words, the U-shaped recess would not read on the instant claims. Only flat surfaces such as those on a strip, wheel, or compression bar are claimed. Therefore, the instant claims are patentable.

In addition, the combination of Onishi and Schwarzkopf does not meet all claim limitations. With regard to claim 10, the member (15) of Onishi is not heatable; it is only a presser. The apparatus of Onishi operates through ultrasonic oscillation, in which the materials are induced to vibrate and heat is created through friction; see col. 1, lines 4-14. Therefore, no heatable member is provided by Onishi because none is needed. For that reason, there would also be no motivation to combine any heating member provided by Schwarzkopf.

Furthermore, Onishi is directed to an ultrasonic welding apparatus for joining elements together. The present development relates to the post treatment of an ultrasonically welded seamed flexible imaging member belt to produce a smooth seam. Specifically, the development is directed to overcoming the seam morphology produced during the belt joining process. This is accomplished by heating the welded seam regions to at least the glass transition temperature of the belt to produce, with subsequent compression, the smoothing result desired, etc.

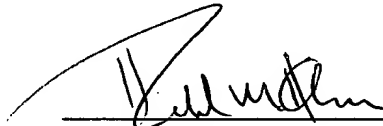
CONCLUSION

For the above reasons, all pending claims (claims 10-13, 15-20, 22-27) are in condition for allowance. Withdrawal of the rejections and issuance of a Notice of Allowance is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby authorized to call Richard M. Klein, at telephone number 216-861-5582, Cleveland, OH.

Respectfully submitted,

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